

DETECTION OF BIOLOGICAL MOLECULES USING BORONATE-BASED CHEMICAL AMPLIFICATION AND OPTICAL SENSORS

ABSTRACT OF THE DISCLOSURE

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Methods are provided for the determination of the concentration of biological levels of polyhydroxylated compounds, particularly glucose. The methods utilize an amplification system that is an analyte transducer immobilized in a polymeric matrix, where the system is implantable and biocompatible. Upon interrogation by an optical system, the amplification system produces a signal capable of detection external to the skin of the patient. Quantitation of the analyte of interest is achieved by measurement of the emitted signal.

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